



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/910,555      | 07/20/2001  | Hanafy Meleis        | 9209-5              | 3472             |

20792 7590 04/03/2006

MYERS BIGEL SIBLEY & SAJOVEC  
PO BOX 37428  
RALEIGH, NC 27627

|          |
|----------|
| EXAMINER |
|----------|

PATEL, DHAIRYA A

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2151

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/910,555 | <b>Applicant(s)</b><br>MELEIS, HANAFY |  |
|                              | <b>Examiner</b><br>Dhairya A. Patel  | <b>Art Unit</b><br>2151               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,8-13,15-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-13,15-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This action is responsive to communication filed on 1/23/2006. Claims 1,3-6,8-13,15-20,22-26 are rejected. Claims 2,7,14,21 are cancelled.
2. This amendment has been fully considered and entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,3-6,8-13,15-20,22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cobbs et al. U.S. Patent # 6,012,088 (hereinafter Cobbs) in view of Bahlmann et al. U.S. Patent # 6,487,594 (hereinafter Bahlmann).

As per claim 1, Cobbs teaches a network model for managing a service, comprising:

-an end service domain (Fig. 1 element 12) that associates the service with an end service provider, the end service domain comprising: (Fig. 1 & 2; column 5 lines 1-13).

The reference teaches Internet service provider (end service domain) that associates service with global carrier (end service provider).

-a plurality of wholesale service domains (Fig. 1 element 30,32), respective ones of the plurality of wholesale service domains comprising at least one network that provides traffic transport for the end service domain; (Fig. 2&3; Column 5 lines 30-38).

The reference teaches plurality of IP network (wholesale service domain) that provide traffic for Internet service provider (end service domain).

-a plurality of gateways (Fig. 2 element 42)(Fig. 3 element 100), wherein at least a first one of the plurality of gateways couples one of the plurality of wholesale service domains to another one of the wholesale service domains and is configured to perform protocol translation on traffic passing between the coupled wholesale service domains, and wherein at least a second one of the plurality of gateways is configured to couple a user to the end service domain and is further configured to communicate with the user by a protocol associated with the service; and (Fig. 1,2,3,4,6)(Column 8 lines 14-34, Column 6 lines 6-12).

The reference teaches providing address translation (protocol translation) between coupled wholesale service domain and gateway configured to couple a user to the end service domain and communicate with the user.

-a process domain that provides an abstract representation of applications provided by the end service domain. (Column 6 lines 13-16)(column 8 lines 5-67)(column 9 lines 1-9)

The reference teaches providing email service by the email server, FTP daemon, web server for viewing and accessing webpages, automatic configuration engine (applications) which are representation of the applications because automatic configuration engine, FTP daemon, system administration module which provided graphical user interface to access webpages are applications which are provided by the Internet access device through the ISP (end service domain).

-a service management system that is communicatively coupled to the end service domain, the service management system comprising: (column 5 lines 30-38)

-a plurality of software objects that represent resources in the end service domain for providing the service; and (column 5 lines 30-38)(column 8 lines 5-14, lines 36-44, lines 51-67)(column 9 lines 1-9)

The reference teaches having plurality of software (software objects) and hardware systems of managing and monitoring the IP network which is obvious that since the IP network contains elements and resources, that they are going to be monitored.

Cobbs fails to teach a policy database that comprises rules for associating requirement of the service with resources in the end service domain. Bahlmann teaches a policy database (Fig. 1 element 12,14) that comprises rules for associating requirement of the service with resources in the end service domain (column 3 lines 19-40). Bahlman further teaches having a central policy database (policy database), which stores all router, interfaces, network policies, service group configurations, supported customer premise equipment, cable modem termination system equipment and their associated configurations (policies associating requirement of the service with the resources).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement having a policy database for associating service requirement with the resources. The motivation for doing so would have been so that this allows the internet service provider to standardize the infrastructure and also would

Art Unit: 2151

like to the internet service provider to react quickly to the subscriber (customers) demands (requirement) for products (service) and standardize the product offerings (column 3 lines 59-62).

As per claim 3, Cobbs and Bahlmann teaches a network model of claim 1, but Bahlmann further teaches wherein the requirements of the service comprise:

- service requirements associated with the user (column 3 lines 31-37).

As per claim 4, Cobbs teaches a network model of claim 1, wherein the first one of the plurality of gateways is further configured to set up internal connections in the one of the plurality of wholesale service domain. (Column 4 lines 30-38)

As per claim 5, Cobbs teaches a model of claim 1, wherein the second one of the plurality of gateways is further configured to analyze incoming user traffic and to segregate the incoming user traffic according to application. (Column 11 lines 34-44).

As per claim 6, Cobbs teaches a method of managing a service comprising:

- providing an end service domain that comprises a plurality of resources that facilitate delivery of the service; (column 5 lines 24-38)

- generating a service model that comprises a plurality of virtual processes and a plurality of virtual connections from the end service domain that are associated with the service;(column 6 lines 42-52)(column 6 lines 64-67) (column 7 lines 1-3)

- obtaining information that specifies capabilities of the plurality of resources in the end service domain; and (column 6 lines 42-52)(column 6 lines 64-67) (column 7 lines 1-3)

-assigning the plurality of virtual processes and the plurality of virtual connection to ones of the plurality of resources based on the information that specifies the capabilities of the plurality of resources (Column 7 lines 19-27) (Column 8 lines 35-42).

Cobbs fails to teach providing a policy database that comprises rules for associating requirements of the service with the plurality of resources. Bahlmann teaches a policy database (Fig. 1 element 12,14) that comprises rules for associating requirement of the service with resources in the end service domain (column 3 lines 19-40). Bahlmann further teaches having a central policy database (policy database), which stores all router, interfaces, network policies, service group configurations, supported customer premise equipment, cable modem termination system equipment and their associated configurations (policies associating requirement of the service with the resources).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement having a policy database for associating service requirement with the resources. The motivation for doing so would have been so that this allows the internet service provider to standardize the infrastructure and also would like to the internet service provider to react quickly to the subscriber (customers) demands (requirement) for products (service) and standardize the product offerings (column 3 lines 59-62).

As per claim 8, Cobbs teaches a method of claim 6, wherein the requirement of the service comprise:

-service requirements associated with the user (column 3 lines 31-37).

As per claim 9, Cobbs teaches a method of claim 6, wherein generating the service model comprise:

- identifying service points in the end service domain corresponding to at least one resource through which a user accesses the service and at least one resource that hosts an end service domain application. (column 5 lines 30-43)

As per claim 10, Cobbs teaches a method of claim 9, wherein the end service domain comprise:

- a plurality of wholesale service domains (Fig. 1 element 30,32), respective ones of the plurality of wholesale service domains comprising at least one network that provides traffic transport for the end service domain; (Fig. 2&3; Column 5 lines 2-5).

- a plurality of gateways (Fig. 2 element 42), wherein at least a first one of the plurality of gateways couples one of the plurality of wholesale service domains to another one of the wholesale service domains and is configured to perform protocol translation on traffic passing between the coupled wholesale service domains, and wherein at least a second one of the plurality of gateways is configured to couple a user to the end service domain and is further configured to communicate with the user by a protocol associated with the service; and (Fig. 1,2,3,4,6)(Column 4 lines 52, Column 6 lines 6-12)

As per claim 11, Cobbs teaches the method of claim 10, further comprising:

- associating respective ones of the plurality of virtual connections with respective ones of plurality of ordered lists of the gateways that define routes through the end service domain (Column 11 lines 50-65).



Art Unit: 2151

As per claim 12, Cobbs teaches the method of claim 11, further comprising:

-associating respective ones of the plurality of virtual connections with respective ones of a plurality of routes within the wholesale service domains (Column 11 lines 50-65).

As per claim 13,15-19 respectively, they teach same limitations taught in claims 6,8-12 respectively. Therefore it is rejected under same basis.

As per claim 20,22-26 respectively, they teach same limitations taught in claims 6,8-12 respectively. Therefore it is rejected under same basis.

***Remarks***

Examiner has considered applicant's remarks, but did not find them persuasive.

As per remarks, Applicant stated the following:

A). As per claim 1, Applicant states that Li or Bahlmann fails to teach "a plurality of gateways...configured to perform protocol translation on traffic passing between the coupled wholesale service domains"

B). Applicant also states Li or Bahlmann fails to teach "a process domain that provides an abstract representation of application provided by the end service domain"

C). Applicant also states Li or Bahlmann fails to teach "a plurality of software objects that represent resources in the end service domain for providing the service".

D). Applicant also states Li or Bahlmann does not appear to include any disclosure or suggestion of including rules that associates requirement of a service with the network resources.

Art Unit: 2151

As per remark A, Examiner respectfully disagrees with the applicant because in column 8 lines 14-35, Li clearly teaches providing IP routing/address translation and the address translation module configured allows network address translation (perform protocol translation) and supply appropriate connectivity protocols (protocol translation) to the Internet for the receiving information over the internet (traffic passing between wholesale service domains). Therefore Li clearly teaches "a plurality of gateways...configured to perform protocol translation on traffic passing between the coupled wholesale service domains".

As per remark B, Examiner respectfully disagrees with the applicant because in column 8 lines 5-67, column 9 lines 1-9, Li teaches providing email service by the email server, FTP daemon, web server for viewing and accessing webpages, automatic configuration engine (applications) which are representation of the applications because automatic configuration engine, FTP daemon, system administration module which provided graphical user interface to access webpages are applications which are provided by the Internet access device through the ISP (end service domain). Therefore Li clearly teaches a process domain that provides an abstract representation of application provided by the end service domain.

As per remark C, Examiner respectfully disagrees with the applicant because in column 8 lines 5-14, lines 36-44, lines 51-67 and column 9 lines 1-9, Li clearly teaches having plurality of software objects such as email service, web server which is used for viewing webpages, FTP daemon that represent as resources which are provided by the Internet service provider (end service domain) (Fig. 6). Therefore Li clearly teaches a

Art Unit: 2151

plurality of software objects that represent resources in the end service domain for providing the service.

As per remark D, Examiner respectfully disagrees with the applicant because in column 3 lines 5-13, lines 19-31, Bahlmann clearly teaches having business rules and policies which describes the control and the infrastructure (components) in a real database for the infrastructure elements. The CPD also stores network policies and service group configurations for the infrastructure elements. These policies and business rules are associated with the infrastructure elements which are same thing as requirement of service with the network resources (infrastructure elements). Therefore Bahlmann clearly teaches including rules that associates requirement of a service with the network resources.

As per remarks for claims 6,13,20 teaches similar limitations as claim 1, therefore refer to claim 1 remarks.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). " Automatic configuration for internet access device" by Li et al. U.S. Patent # 6,012,088.

B). "Policy management method and system for internet service providing" by Bahlmann et al. U.S. Patent # 6,487,594.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2151

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A Patel whose telephone number is (571) 272-4066. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAR



**ZARNI MAUNG**  
SUPERVISORY PATENT EXAMINER